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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,378

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James L. McNaughton

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EXAMINER

THOMAS, TIMOTHY P

ART UNIT

PAPER NUMBER

1614

MAIL DATE

DELIVERY MODE

12/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/540,378

**Applicant(s)**

MCNAUGHTON, JAMES L

**Examiner**

TIMOTHY P. THOMAS

**Art Unit**

1614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 October 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.  
4a) Of the above claim(s) 13 and 16-28 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6 is/are rejected.  
7) ☒ Claim(s) 7-12, 14, 15 and 29-31 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 5/26/2006; 6/5/2006  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group II in the reply filed on 10/6/2008 is acknowledged. The traversal is on the ground(s) that the inventions of Group II are nowhere suggested in the Rees disclosure; that there is no basis for suggesting that bovine mastitis could be controlled by use of the presently-specified compositions used in the claims of Group II; that controlling bovine mastitis on tender tissue of a living animal is a far cry from killing microbes in water or on non-living surfaces. This is not found persuasive because although Rees may not specifically discuss the application of bovine mastitis, composition claims, such as claim 16, the recited phrase "for preventing or controlling bovine mastitis" is an intended use of the compositions claim 16; a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Any composition so taught in the prior art that would be suitable for the intended use would anticipate the claim; the Rees teaching makes clear that the compositions taught are intended for use in and around humans, such as the discussion of swimming pools. As such the Rees compositions are deemed to be suitable for the intended use of application to the teats of a cow, even though the Rees teaching does not specifically recite such application. In additional support, the prior art rejections outlined below also render the invention of Group II as lacking inventive step. Therefore, the technical feature linking the inventions is not

"special" as it has been taught in the prior art. Accordingly the inventions are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept, and the requirement is maintained.

The requirement is still deemed proper and is therefore made FINAL.

2. Applicant's election with traverse of specie (ii), which is composition B) utilized in the method of claim 1; the compound of claim 15, viz., 1,3-dibromo-5,5-dimethylhydantoin in the reply filed on 10/6/2008 is acknowledged. The traversal is on the ground(s) that the election requires a single species; that applicant should at least be accorded the courtesy of being able to prosecute in this application claims directed to 1,3-dibromo-5,5-dialkylhydantoins rather than a single solitary compound. This is not found persuasive because the teaching of compositions with a specific compound of the instant claims, as outlined on the record, render the species as not "special"; the species are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept, and the requirement is maintained.

The requirement is still deemed proper and is therefore made FINAL.

It is noted that the request to prosecute 1-3-dibromo-5,5-dialkylhydantoins is taken as a request for rejoinder. However, no rejoinder is made at this time, since the elected specie is not currently allowable.

3. Claims 16-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/6/2008.

4. Claim 13 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected specie, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/6/2008.

#### ***Specification***

5. The use of the trademarks STARBROM® 909; XtraBrom™ 111; and UDDER GOLD® have been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Methods for control of bovine mastitis with active halogen microbicides.

#### ***Claim Objections***

7. Claims 7-12, 14-15 and 29-31 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richter et al. (US 6,379,685 B1; 2002 Apr; filed 1998; IDS 6/5/2006 reference US 258) and Howarth et al. (WO 01/53215 A1; 2001 Jul; IDS 6/5/2006 reference FP-52).

Richter teaches mastitis control teat dip compositions that provide a barrier/film-forming capacity with antimicrobial properties, the compositions are made by combining an aqueous thickened liquid composition (presence of at least one thickener) blended into a smooth viscous material containing an emollient package (contains at least one emollient) (abstract); generally included components in mastitis control treatment are an antimicrobial agent, a rheology modifier (thickener), a film-forming agent, and an emollient (col. 9, lines 12-17); numerous inorganic and organic antimicrobial agents may be used in teat dip compositions including chlorine and bromine release compounds,

including chlorine derivatives of hydantoin (col. 10, lines 49-51); film forming agents include polyvinyl alcohol (a polymeric film-forming agent; col. 12, lines 22-23); treating mastitis with a teat dip implies administration of the composition to the teats of the animal being treated. Richter does not teach the elected composition B) containing dibromantin (the elected compound).

Howarth teaches 1,3-dibromo-5,5-dimethylhydantoin (dibromatin) particulate biocidal agents (abstract); the compound's principal use is as a source of bromine in conducting bromination reactions in chemical synthesis (p. 1, 1st paragraph) that the use of chlorine, of hypochlorites and certain halogenated organic water-treating agents forms undesirable disinfection by-products (p. 2, 3<sup>rd</sup> paragraph); when dibromatin was used in treating water, it achieves US EPA requirements at a level one-half that required using bromochlorodialkylhydantoins, that the compound effectively sanitizes water at extremely small concentrations (p. 1, last paragraph); the low concentrations are expected to significantly reduce by-products of disinfection (p. 2, 1<sup>st</sup> paragraph).

It would have been obvious to one of ordinary skill in the art to substitute the elected compound for the antimicrobial agent of the compositions taught by Richter and to apply these compositions to treat the teats of milking cows to control bovine mastitis, giving the method of the instant claims. The motivation would have been the substitution of one art-recognized sanitizing agent that releases bromine for the compounds taught by Richter, since Richter suggests both bromine-releasing and similar chlorine derivatives of hydantoin.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richter et al. (US 6,379,685 B1; 2002 Apr; filed 1998; IDS 6/5/2006 reference US 258) and Howarth et al. (WO 01/53215 A1; 2001 Jul; IDS 6/5/2006 reference FP-52) as applied to claims 1-2 and 4-6 above, and further in view of Cross (US 20020096541 A1; 2002 Jul; filed 2001 Oct).

Richter does not teach application of a composition in the form of a foam. Cross teaches there are advantages in dipping the teats in a foam rather than a liquid, including foam is more visible to the eye, providing visible confirmation, less disinfectant may be used. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the formulation obviated by the combination of Richter and Howarth, as outlined above, into the form of a foam. The motivation would have been the art-recognized alternate suitable form, with the advantages taught by Cross.

### ***Conclusion***

12. No claim is allowed.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY P. THOMAS whose telephone number is (571)272-8994. The examiner can normally be reached on Monday-Thursday 6:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on (571) 272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy P Thomas/  
Examiner, Art Unit 1614

/Ardin Marschel/  
Supervisory Patent Examiner, Art Unit 1614